WHAT CAN AN ORGANIZATION FOR THE BLIND DO IN PREVENTING BLINDNESS?

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What Can an Organization for the Blind Do in Preventing Blindness?*†

Conrad Berens, M.D.

IF our highest ambition is realized, says Dr. Berens, we may ultimately reduce the number of the blind to about 25 per cent of the present total

MORE than fifty years ago a distinguished authority said that one-third of all blindness should have been prevented, one-third might have been prevented, and only one-third was inevitable. Statistics obtained from the British Isles only twelve years ago form the basis for a similar statement made by Dr. Bishop Harman of London. Active co-operation with the Committee on Statistics of the Blind, reviewing recent data on the causes of blindness, justifies the statement that probably not more than 25 per cent of blindness is inevitable.

When we consider that the first active effort to work with the blind was instituted 150 years ago, we can but admire its remarkable development. Organizations for improving the conditions of the blind were obliged first to undertake work of the most urgent nature, and the importance of their contribution in providing opportunity, care, education, training, and means of existence for those handicapped by loss of sight cannot be overemphasized.

It is encouraging that this Association and others which work with the blind are also sponsoring work for the prevention of blindness. In this paper I hope to outline a few of the activities which may be of value in this work. As knowledge of the causes of blindness increases, efforts to help the blind must include, in so far as

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possible, the elimination of factors responsible for their condition and the institution of energetic preventive measures. Although it is agreed that those who are blind should be assisted in every possible manner, efforts to prevent the future need of this work are as commendable as the recognition of the importance of preventive medicine.

I am happy to be able to demonstrate, by means of concrete cases, that measures directed toward the prevention of blindness by certain agencies and institutions caring for the blind undoubtedly have resulted in preventing much unnecessary blindness, and furthermore have been instrumental in restoring sight to many who were considered permanently blind.

In presenting a program for the prevention of blindness three activities must be stressed: (1) Co-operation with ophthalmology and medical sciences in obtaining information as to the causes of blindness and means through which blindness may be prevented and good vision may be conserved; (2) the interpretation and dissemination of this information to the public; (3) co-operation with other agencies so that laws may be enacted and social conditions improved.

Co-operation with Ophthalmology and Medical Sciences

Blindness from certain causes will often yield to treatment or operation, *e.g.*, cataract, etc. In other cases, where vision has not been entirely destroyed, the progress of the disease may be arrested and sometimes an improvement in vision effected, *e.g.*, keratitis, glaucoma, etc. Only a physician who has made a special study of diseases of the eye can diagnose the condition accurately and judge the possibility of improvement or cure. The lay worker, however long his experience, has not the necessary knowledge or skill to do this and should not undertake the responsibility of attempting it. It cannot be overemphasized that until the opinion of a competent ophthalmologist has been secured, the agency for the blind should not assume that the new client is necessarily and permanently blind. The importance of this statement was vividly illustrated recently in a study of the causes of blindness. The examination of data from several schools for the blind disclosed the fact that vision in many cases was so good that even

without operation or special treatment these patients should not have been considered as candidates for a school for the blind.

Routine Examinations.—However incredible it may seem, there is proof in homes and schools for the blind that the co-operation of eye physicians has not been obtained in making examinations of persons reported as blind. For example, Dr. J. E. Blaydes[1] showed that in one school for the blind with an enrollment of 114 pupils, the sight of 11 could be restored to normal; 8 could be improved to practically normal (20/30 to 20/50); 7 could be given vision sufficient for reading (20/50 to 20/70); 3 could be given vision of 20/100 to 20/200; and 3 could have "travel vision" (5/200 to 10/200). Thus 32 of 114 pupils—29 per cent—in one school for the blind might have had their sight greatly improved by proper medical and surgical attention.

At the time of the survey of schools for the blind which was made by one of the subcommittees of the White House Conference on Child Health and Protection it was found that in 44 schools, having a total enrollment of 4,195, there were 673 students (16 per cent) having sufficient vision to permit their reading ink print.[2] It seems unnecessary to recount the advantages to children of being transferred to sight-saving classes rather than being classified as blind.

It is likewise true that men and women, after having been classified as blind, have been thoroughly examined by an eye physician who found that vision could be improved to such a degree that many of them could be self-supporting in occupations requiring sight. Our statistics from the Lighthouse Eye Clinic of the New York Association for the Blind show that between November 1, 1932 and May 27, 1933—a period of seven months—50 patients reported to be blind were transferred from the blind to the seeing classification. The summary follows: The vision of 18 patients was restored to normal by means of glasses; the vision of 23 was improved by glasses; 4 were improved by treatment; and operation improved the vision of 5. Previous to their re-classification, a number of these patients had received financial aid and subsidized employment.

The records of the Lighthouse Eye Clinic furnish the following case report: E. F., age 65, formerly a waiter in a restaurant.

Cataracts developed in both eyes twenty years ago. The left eye was operated on immediately. Postoperative complications resulted in loss of vision. At that time and at subsequent observations he was advised not to have the right eye operated upon. After the patient was examined at the Lighthouse Eye Clinic, the symptoms in the eye previously operated upon were diagnosed as arising from a focus of infection. Following treatment, an operation was performed on the right eye. His vision is now 20/15.

A case recently reported was that of a woman who, for nine years, had been considered blind and had been receiving social service and subsidized employment from an agency for the blind. When an eye examination was arranged for, it was found that, fitted with the proper glasses, she had practically normal sight.

These are only a few instances of the saving of money and effort, to say nothing of the increased happiness of the individual, which may be achieved through a routine eye examination. When the client still retains a certain degree of vision, it is important to know what the visual acuity is and what activities he may safely engage in without jeopardizing that sight. In this, the opinion of the eye physician is essential.

For these reasons, in every agency an eye examination and diagnosis by a competent eye physician should be one of the first steps in procedure with a blind client. If the patient has been under the care of an ophthalmologist, a re-examination may not be necessary, but in such a case the agency should consult the ophthalmologist immediately and secure as full a report as he is able to give. Other exceptions to the general routine will be found; for example, very aged or feeble clients, those who have had both eyes enucleated, and those who live in isolated districts where no physician is available. Nevertheless, it will be found that in most cases an examination can be arranged for, and it should therefore be established as a routine procedure to be departed from only when exceptional circumstances justify it.

Certain agencies may feel that routine eye examinations are impractical because of the expense involved. It may be that they have no funds to pay for such examinations, that their clients are unable to pay for the services of a private physician, or that no ophthalmologist is available. In such situations, however, an

effort should be made to secure the co-operation of the county medical society or some similar body, in making the necessary eye service available. Lions Clubs or other volunteer groups are usually willing to defray the necessary expenses of travel, etc., and eye physicians will give their services without charge when they understand the serious need.

Routine examinations of the eyes are also valuable in building up reliable knowledge of the prevalence of the various causes of blindness. When records are more complete so that proper classifications may be made, authentic data may be assembled. Organizations for the blind may well contribute to this knowledge by keeping accurate records, the beginning of which must be the routine eye examination.

What Are the Causes of Blindness?—Among the direct causes of blindness, presented from the point of view of the worker with the blind, the following may be mentioned:

Cataract.—In an analysis of 360 records of the blind, cataracts (congenital, diabetic, and other types) were reported as the cause of blindness in one-third of the cases. Since these figures were compiled in a state where routine examinations of the eyes were not the rule, the percentage may be high, but it indicates that if examinations had been made when patients came under observation, undoubtedly operation would have saved the sight of some.

Statistics from the United States residential and day schools for the blind show that 14.8 per cent of the 5,286 pupils in these schools are blind as a result of congenital cataract. Newmayer[3] records the interesting case of a family of five children, three of whom had congenital cataracts of both eyes. Following operation, the vision of the two older ones, aged 12 and 14 years, was 15/100 in each eye. The youngest child, three years old, has not yet been operated upon. Many cataracts result from injuries, either simple blows on the eyes or penetrating injuries, and naturally many of the cataracts of this type are preventable.

Incipient senile cataract develops in people past middle age, but it is probable that age is not the most important factor in the production of the cataract. We are beginning to realize that the patient's general condition plays an important part in the cause of cataract.

For a long time we have been impressed with the close relation that exists between chronic infection and cataract. Often one sees a slowly developing cataract associated with a chronic sinus infection. We are being forced to the conclusion that the majority of cataracts whether in children or in adults, have a cause, even if we are unable today to find it. In the present state of our knowledge, we must make every effort to find that cause, whether it be in the nose or throat, sinuses, teeth, intestinal tract, blood (example: diabetic cataract), glandular system, or due to a congenital or hereditary defect. Several years ago, in a certain hospital in a large city, every patient with a cataract was operated upon as soon as possible. No thorough general examination of the patient was made. At present, in most hospitals, careful general studies, including Wassermann tests, urinalysis, and blood chemistry, are usually made before operation is advised.

Finally, a brief word on the treatment of cataract—once the cataract has become established, it cannot be dissolved. It consists of degenerated lens fibers enclosed by the lens capsule. In the incipient stage, improvement in visual acuity may occur under appropriate general treatment. This may not be due entirely to a decrease in the extent of the cataract, for once the fibers are degenerated they will never return to normal, and operation is the only cure.

Organizations for the blind can aid in preventing cataracts by disseminating information in regard to the hereditary nature of certain cataracts and the possible danger of transmitting the defect; by aiding in safety campaigns in industry and by stressing the danger of playing with pointed instruments and air rifles; and by assisting public health organizations in raising living standards and promoting measures to improve health.

Ophthalmia Neonatorum (Babies' Sore Eyes or Gonorrheal Conjunctivitis).—While all inflammation of the eyes in the newborn is not due to gonococci, the gonorrheal variety leads to the most serious consequences. Fortunately, the incidence of ophthalmia neonatorum has been greatly reduced, as announced at the recently celebrated twenty-fifth anniversary of the National Society for the Prevention of Blindness. Twenty-five years ago 26.5 per cent of the pupils entering schools for the blind owed their

misfortune to babies' sore eyes. Seven years later the percentage had been reduced to 15.1. Now it is 7. This is the result of the adoption of laws, in most states, requiring doctors, nurses, or others in attendance to put prophylactic drops in the eyes of babies at birth. The complete eradication of this source of blindness is regarded as scientifically possible, and laws requiring the use of a prophylactic should be enacted in every state. The co-operation of associations for the blind can aid materially in obtaining legislation requiring the use of a prophylactic.

Syphilis.—Conservative estimates tabulate syphilis as the cause of at least 15 per cent of total blindness in several occidental countries. For every case of total blindness traceable to syphilis, several times as many cases of serious impairment of vision are due to this cause.

Patients may be divided into two classes: those with acquired syphilis and those with congenital syphilis. In those who have acquired syphilis, ocular signs often appear long after the initial symptoms of the disease have become manifest. Hard chancre (the primary lesion) of the eyelids is very rare but the mere fact that it occurs teaches us that the disease may be spread through kissing. Many patients, treated for a time and seeing no signs of skin disfigurement or external evidence prompting further care, fail to follow medical advice. The tissues of the eye like the tissues of the spinal cord and central nervous system, are most susceptible to infection and suffer from the accumulation of toxic substances, which may not be easily recognized for 20 to 30 years after the onset of the infection.

Among the eye involvements which may be due directly or indirectly to syphilis are interstitial keratitis, iritis, choroiditis, retinitis, optic atrophy, and a number of other serious eye conditions. No structure of the eye is exempt.

When the seeing coat of the eyeball (the retina) is affected by syphilis, the blood vessel coat (the choroid) is likewise involved and chorioretinitis follows. In many cases syphilitic retinitis takes on a form which simulates retinitis pigmentosa (a progressive disease of the retina with pigmentation, the cause of which is unknown). We then see areas of pigment scattered over the entire back of the eye. These patients also have night blindness.

In these cases salvarsan and mercury may aid, whereas the cases of true retinitis pigmentosa are not benefited by these drugs.

Early recognition and appreciation of the importance of immediate and continued treatment, perhaps extending over several years, will tend to reduce loss of vision as well as the many other physical disasters consequent upon syphilis.

The ravages of congenital syphilis are so serious and can so largely be avoided by known preventive measures that we are challenged to fight for future generations of innocent children. Holloway[4] estimates that 75 per cent of congenitally syphilitic persons sooner or later show distinct ocular evidences of syphilis. The child may be born with normal sight but, with this disease congenitally present, vision may be slightly more impaired each year during childhood and youth. If proper precautions are not taken, such eye conditions as interstitial keratitis, one of the common causes of blindness, may result. It is, therefore, important that children in whom there is any reason to suspect congenital syphilis should be kept under careful supervision and that every precaution should be taken to control the disease. The congenitally syphilitic child may have certain characteristics which are easily recognized, such as the stature, shape of the head, formation of the teeth, etc., but in many instances no cranial or facial stigmas are evident.

Physicians generally agree that properly administered treatment of the expectant mother, commenced as soon as possible after the beginning of pregnancy and, in any case, not later than the fourth month, will almost certainly free the child born of such a mother from infection.

Parents whose blindness is due to syphilis, either congenital or acquired, should take every precaution to insure against blindness in their children from this cause. Agencies for the blind should seize every opportunity to put the correct information into their hands and to assist them to secure the proper treatment and care. By disseminating information in regard to blindness caused by syphilis and by co-operating with agencies dealing with the prevention of syphilis much unnecessary blindness may be prevented.

Hereditary Blindness.—Workers with the blind are often called upon for an opinion as to the danger of blindness in the children

of blind parents. It is therefore important for them to have a correct understanding of such questions and to use their influence in the right direction when the occasion arises. There is much misinformation current regarding the possibility of inherited blindness. But first it would be well to explain what hereditary blindness is.

Truly hereditary blindness is that which is transmitted through the germ plasm from parent to child. It is an inherent part of the child's make-up, present from the moment of conception, and manifests itself either in blindness from birth or in a weakness or defect which ultimately produces blindness. It is transmissible in the same way that the color of the eyes and the shape of the features are transmissible. Fortunately, cases of blindness which are truly hereditary are believed to be comparatively rare; but, unfortunately, little is known about the rules of their transmission. It is safe to say, however, that parents, who are themselves blind from hereditary causes or who have, in either family, cases of hereditary blindness, should not risk having children.

In the present state of our knowledge concerning the causes of blindness, it is difficult to differentiate hereditary from congenital causes. Statistics (1930–31) from residential and day school classes for the blind in the United States show that 28.6 per cent of all blindness is due to congenital and hereditary causes.

In a study of the causes of blindness among pupils in the Pennsylvania Institution for the Instruction of the Blind (1932–33), it was found that of 265 pupils, 120 (45 per cent) were blind from congenital and hereditary causes.

Nettleship[5] traced senile and juvenile cataract through 167 families, three to six generations being affected; and studied 238 cases of hereditary cataract. In one family, 30 members in four generations showed the defect.

Loeb[6] reported a family in which every member for five generations was affected with cataract. He also records cases of six families headed by blind parents in which 17 out of 31 children were blind.

Howe[7] found eight cases of glaucoma in one family. After several years this number had increased to fourteen. Forty years ago two young people, congenitally blind, were married. A few years ago their blind progeny numbered 17.[8]

Fortunately, many so-called hereditary eye defects are really congenital and due to birth injuries; but many thousands of cases are truly hereditary, and organizations for the blind can aid by disseminating information regarding these defects and by co-operating with agencies interested in hereditary and congenital diseases.

Trachoma.—While the United States has for many years refused admission to immigrants showing symptoms of trachoma, there are thousands of citizens and Indian wards afflicted with this disease, which often results in loss of sight and in economic failure.

Preventive measures are handicapped by lack of knowledge as to the exact cause of the disease, but all public health measures directed against over-crowding and those which improve health and living conditions are of value. All institutions for the blind should be careful to exclude applicants who have trachoma until an eye physician says the disease is not transmissible.

Glaucoma.—This disease causes much of the blindness of middle age and later life. Jackson[9] estimates that 12 per cent of all cases of hopeless blindness are caused by glaucoma. There is also the type known as congenital glaucoma, which occurs in infants. This is called "ox-eye" or buphthalmos. It is probably due to poor development or blocking of the outlet channels, and, occasionally, to a prenatal inflammation.

Glaucoma is now being treated as "a sick eye in a sick body" and, while no definite cause has been determined, certain investigators are beginning to believe that general disorders and chronic infections may play an important rôle. Relief from symptoms and arrest of the disease, but not a cure, are all that may be expected from treatment. Often blindness and intense continual pain can be avoided.

Agencies for the blind can aid by disseminating information in regard to the great necessity for the continued observation and treatment of patients who have glaucoma, by aiding the promotion of measures to improve the general health, and by urging the periodical examination of the eyes, especially in middle-aged, or older persons.

Tuberculosis.—Tuberculosis of the eye causes a large amount of blindness. It may appear in children in the form of disseminated choroiditis, that is, scattered areas of inflammation affecting the

blood vessel and seeing coats of the eye. It is estimated that 25 per cent of the diseases affecting the blood vessel coat of the eyeball which may result in blindness are caused by tuberculosis.

Another type of tuberculosis affects the central part of the back of the eye and may destroy central vision. Improving living conditions and diet, and seeing that the patient receives constant supervision and treatment, may effect improvement if the disease is not too far advanced. Certain authorities place great reliance in tuberculin.

Prevention is and should be under the guidance of agencies for the prevention and cure of tuberculosis and those interested in preventing blindness from this cause can be of greatest service by cooperating with these agencies.

Accidents.—The development of inventions and the resulting hazards of industrial life have brought about a large increase in the blind population. Professor Best's statement[10] that "external injury constitutes the most important cause of blindness through the greater part of life" is supported by the estimate[11] that, in the United States, approximately 15 per cent of those blind are so as a result of industrial accidents. It is evident that a still greater number have vision so impaired by injury as to handicap them for life.

In this class of blindness, especially, one finds evidence of the tremendous economic waste resulting from loss of efficiency and the actual financial cost of compensation. To mention an example: over a period of eight years, under the Workmen's Compensation Act in the state of Pennsylvania, compensation for loss of eyes constituted more than 40 per cent of the amount awarded for permanent injuries. In other words, of a $15,332,220 total, $6,201,762 was awarded for eye accidents, a greater sum than the combined compensation for loss of legs, arms, and feet and from miscellaneous injuries.[12]

The Pullman Company, one of the largest industrial organizations in the United States, reports the saving from serious injury or destruction of sight of approximately 1,000 men since the adoption of regulations demanding the use of protective goggles. Another company records a decrease in accident cost from $16,500 to $200 a year. Still another reports during a three-year period a

steady reduction of eye injuries from 103 to four as a consequence of the use of protective devices.

Blindness from industrial accidents may be reduced through the co-operation of the employer and the education of the superintendents and workers in means of preventing and caring for accidents.

Legislation, compensation for injuries and other governmental regulations undoubtedly will continue to play a most important part in forcing industry to reduce accidents of all sorts, and this will be advanced by the modern tendency to make industry responsible for loss of life and for permanent injury. The contribution of volunteer safety movements in the industrial field is also well recognized.

Automobile accidents, so frequently accompanied by flying fragments of glass, account for numerous eye injuries. It is gratifying to know that recently three states, New York, Nebraska and Pennsylvania, have passed laws providing that shatter-proof glass be installed in all automobiles. Fourth of July accidents are frequent preventable causes of blindness.

Workers with the blind can aid in preventing blindness from injuries by helping to disseminate information in regard to the frequency, causes and methods of preventing eye injuries and by co-operating with agencies dealing with the prevention of blindness from these causes.

Statistics of Causes of Blindness.—It is unfortunately true that there are in this country, and, practically speaking, in the world, no reliable data as to the prevalence of the various causes of blindness. Such studies as have been made include only limited areas, and, because there has been little uniformity in classifying the data, it is impossible to combine them into statistics representative of larger groups. Consequently, we have no authentic statistical data on which to base campaigns for the prevention of blindness, nor can we measure with any accuracy the progress made in prevention. Organizations for the blind are in a better position than any other agency to record and assemble these data, and may well feel an obligation to make this contribution to our knowledge of blindness and our activities for its prevention. Fortunately, the time and expense involved in assembling such data are very small. The routine eye examination by a competent ophthalmologist,

which we have already discussed as being an essential preliminary to the social treatment of the case, will afford the necessary facts; and the compiling of summaries is the smallest part of the task. I would therefore urge every agency for the blind to undertake to record as completely as possible the causes of blindness among its clients. The Committee on Statistics of the Blind, sponsored jointly by the National Society for the Prevention of Blindness and the American Foundation for the Blind, will be glad to give assistance in the compilation of such data.

The Interpretation and Dissemination of Information to the Public

Prevention of blindness depends primarily upon the education of the public as to the possible causes of blindness and the means which should be used to prevent it. This education may take the form of talks before women's clubs, Lions' Clubs, and other public bodies, talks to students in schools and colleges, newspaper articles, exhibits at county fairs, news letters sent out periodically, and other means of getting information into the hands of the lay public. It is gratifying to note, as I have stated earlier in this paper, that, through the use of such means, the incidence of ophthalmia neonatorum has been greatly reduced during the past twenty-five years. Since ophthalmia neonatorum may be prevented by the simple and safe method of introducing a solution of nitrate of silver into the eyes of the newborn child, there should really be no cases of blindness from this cause, and we must carry on until this entirely unnecessary and preventable disease shall have been completely eliminated.

Accidents are another cause of blindness concerning which the education of the public is essential. Although no figures are available, there is reason to believe that blindness from industrial accidents has been increasing. Safety education campaigns, particularly among factory workmen, will tend to decrease this. Blindness from Fourth of July accidents is also unnecessary and, because of safety education, is yielding to better understanding on the part of parents and children. Laws regulating the sale of fireworks have been enacted in several states, but they can be enforced only through the whole-hearted support of the public.

The public should be educated to consult a competent eye

physician when eye symptoms develop, for in this way many eye conditions, such as glaucoma (hardening of the eyeball), trachoma, and tuberculosis may be discovered, treated and controlled before sight is lost. In such cases time is often the most important factor.

It is essential also for the public to know the relation between general diseases and diseases of the eye, and to realize that many eye conditions have a background of deranged bodily function or disease that may be discovered by an eye physician.

Co-operation with Other Agencies

Co-operation with Eye Clinics.—In some institutions for the blind, every patient, before being accepted, is examined in an eye clinic, and the medical and surgical treatment indicated is carried out. One institution (Lighthouse Eye Clinic of the New York Association for the Blind) has developed its own eye clinic. In the last two and one-half years (November 1, 1930, to June 22, 1933) 2,313 patients have been examined. In this clinic, social service and follow-up work have been stressed, because it has long been apparent that probably the greatest field for preventive ophthalmology is in the eye clinic,[13, 14] and that clinics without proper social service work fail lamentably in preventing blindness.

If proper social service and follow-up work is carried out until treatment is completed on all patients with eye diseases which may result in blindness, much blindness can be prevented. In the Lighthouse Eye Clinic, 353 home visits were made and, 3,586 follow-up letters were written between November 1, 1930, and June 22, 1933.

Even though all organizations for the blind cannot have their own eye clinics in connection with their social service work, by aiding in the organization of follow-up work for their cases and by stressing follow-up work in other clinics in which they may have influence, they will do splendid work in preventing unnecessary blindness.

The preschool clinic in which children are routinely examined before they are old enough to attend school is most valuable. In these clinics early tendencies to eye diseases which might result in blindness are diagnosed and treated.

Co-operation with Public Health Agencies.—There should be the closest co-operation between the agencies for the blind and the

public health agencies in the prevention of communicable disease which may lead to blindness. Ophthalmia neonatorum comes under this head, as do measles, trachoma, smallpox, scarlet fever, meningitis, syphilis, and other diseases. Great progress has been made during the past twenty-five years in the prevention of communicable disease, but much still remains to be done.

It will be found that the public health nurse is one of the most effective agents in this type of prevention, and many ways will be found in which her active co-operation will prove most valuable. In this connection, it should also be pointed out that the public health nurse may be very useful in locating cases of blindness or prospective blindness, particularly in isolated communities. It would be well for the worker with the blind to spend some time and effort in interesting the public health nurse and in adding to her store of information about blindness and the possibilities of preventing blindness.

Promotion of Sight-Saving Activities.[15]—You are familiar with those cases of defective vision in which unwise use of the eyes will destroy whatever sight remains. This is particularly important in children, since the ordinary process of obtaining an education calls for constant use of the eyes. One of the most important activities in prevention of blindness is the promotion of sight-saving classes—that is, classes in the public schools where, through the use of large print, verbal instruction, exceptionally good lighting, suitable desks and special writing appliances (soft black pencils and unglazed paper), a child may receive an education without undue eyestrain.

The agency for the blind should interest itself in this type of prevention work, either in co-operation with other agencies, or, if necessary, as the leading spirit in the movement. Many states provide by law for the establishment of such special classes in the public schools, and all that is needed to bring them into being are energy and determination. In other states such laws do not exist and the agency for the blind should make every effort to see that proper provision is made for these pupils in need of sight conservation.

Should an Agency for the Blind Have a Prevention Campaign?

Some may feel that an agency for the blind is concerned only with actual blindness and should not extend its interest and duties

to include prevention work. Associations for the blind, when they sponsor any work for the prevention of blindness, carry authority which demands and receives attention, and their active co-operation in all preventive work is highly desirable. I fully appreciate that they have their own special work and problems and that most of the active work for the prevention of blindness should be carried on by organizations developed for this purpose. In many cases it is true that prevention work is adequately taken care of by other agencies, and that the agency for the blind should co-operate with them rather than institute activities of its own. In many communities, however, this is not true, and in view of the social and economic importance of preventing blindness as well as the value of increased human happiness it is essential that some agency should undertake it. In such cases it would seem short-sighted for agencies for the blind not to organize an active campaign for the prevention of blindness through co-operation with the National Society for the Prevention of Blindness.

Conclusions

I hope the suggestions presented have made it evident that an organization for the blind can aid materially in the prevention of blindness, and that this preventive work is one of its most important functions.

Much unnecessary blindness may be prevented if organizations for the blind will take active part in the following:

1. Having every client thoroughly examined by an ophthalmologist;
2. Securing surgical or medical treatment for all patients requiring it;
3. Establishing eye clinics and preschool clinics with social service and follow-up work in association with their work or aiding in the organization of follow-up work in other clinics;
4. Educating the public by means of lectures, pamphlets, posters, etc., in regard to measures for the prevention of blindness;
5. Co-operating with sight-saving classes or aiding in the establishment of classes;
6. Obtaining the passage of laws to improve social conditions and to require the use of certain preventive measures and safety devices;

7. Co-operating with national and local organizations for the prevention of blindness, and public health and other agencies which deal with certain phases of the prevention of blindness problem.

Organizations for the blind and those interested in working with the blind will be heard with eagerness when they speak on the subject of prevention of blindness. Certain of the statistics presented in this paper show that unfortunately much is yet to be accomplished in preventing blindness.

I hope that interest in this subject has been stimulated by this discussion and a desire for active co-operation in this work has been aroused. If this result has been attained we will have aided in bringing light and added happiness to many and, if our highest ambition is realized, we may ultimately prevent blindness in all but that 25 or 30 per cent of people in whom it was inevitable.

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